Biology Lesson Plan

Subject:\_\_Biology / evolution\_\_\_\_\_\_\_\_\_\_\_\_ Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit:\_\_\_\_\_Fossil Evidence of Change \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**SOL:** The student will investigate and understand how populations change through time.

**VBCPS Objective:** Understand how the ages of fossils are determined.

**Topic:** Geologic Time

**Essential Question**: What is the main evidence available to scientists about life in the past?

**Instructional Procedure:**

**Materials Needed:**

**Assessment / Activity**

Biology Lesson Plan

Subject:\_\_Biology / evolution\_\_\_\_\_\_\_\_\_\_\_\_ Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit:\_\_\_\_ Evidence for Evolution \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**SOL:** The student will investigate and understand how populations change through time.

**VBCPS Objective:** Use fossils to trace the evolutionary past of contemporary species.

Recognize embryonic similarities in diverse organisms in the animal kingdom, from

zygote through embryo.

Use amino acid or nucleotide sequences to determine relationships between organisms.

**Topic:** Evidence for Evolution

**Essential Question**: What evidence supports the theory of evolution by natural selection?

**Instructional Procedure:**

**Materials Needed:**

**Assessment / Activity**

Biology Lesson Plan

Subject:\_\_Biology / evolution\_\_\_\_\_\_\_\_\_\_\_\_ Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit:\_\_\_\_\_Origin of Life \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**SOL:** The student will investigate and understand how populations change through time.

**VBCPS Objective:** Describe the scientific explanations for the formation of the first organic molecules.

Explain the origin of prokaryotes.

Describe the evolution of eukaryotes.

**Topic:** Origin of Life

**Essential Question**: How did life begin?

**Instructional Procedure:**

**Materials Needed:**

**Assessment / Activity**

Biology Lesson Plan

Subject:\_\_Biology / evolution\_\_\_\_\_\_\_\_\_\_\_\_ Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit:\_\_\_\_\_Darwinian evolution \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**SOL:** The student will investigate and understand how populations change through time.

**VBCPS Objective:** Explain the development of the theory of natural selection.

**Topic:** Charles Darwin and the Galapagos

**Essential Question**: Who was Charles Darwin? Why is his work important?

**Instructional Procedure:**

**Materials Needed:**

**Assessment / Activity**

Biology Lesson Plan

Subject:\_\_Biology / evolution\_\_\_\_\_\_\_\_\_\_\_\_ Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit:\_\_\_\_\_Natural Selection\_\_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**SOL:** The student will investigate and understand how populations change through time.

**VBCPS Objective:** Describe how natural selection leads to adaptations and the emergence of new species.

**Topic:** Survival of the fittest

**Essential Question**: What is natural selection?

**Instructional Procedure:**

**Materials Needed:**

**Assessment / Activity**

Biology Lesson Plan

Subject:\_\_Biology / evolution\_\_\_\_\_\_\_\_\_\_\_\_ Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit:\_\_\_\_\_evolutionary relationships\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**SOL:** The student will investigate and understand how populations change through time.

**VBCPS Objective:** Interpret a cladogram or phylogenic tree showing evolutionary relationships among organisms.

**Topic:** Evolutionary relationships

**Essential Question**: How does a cladogram explain evolutionary relationships?

**Instructional Procedure:**

**Materials Needed:**

**Assessment / Activity**

Biology Lesson Plan

Subject:\_\_Biology / evolution\_\_\_\_\_\_\_\_\_\_\_\_ Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit:\_\_\_\_\_Intelligent Design\_\_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**SOL:** The student will investigate and understand how populations change through time.

**VBCPS Objective:**

**Topic:** Intelligent Design

**Essential Question**: What other explanation is there to explain life in the past?

**Instructional Procedure:**

**Materials Needed:**

**Assessment / Activity**

Biology Lesson Plan

Subject:\_\_Biology / evolution\_\_\_\_\_\_\_\_\_\_\_\_ Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit:\_\_\_\_\_Evolution\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**SOL:** The student will investigate and understand how populations change through time.

**VBCPS Objective:**

**Topic:** Court Cases involving the teaching of evolution

**Essential Question**: Has the teaching of evolution been influenced by thecourts?

**Instructional Procedure:**

**Materials Needed:**

**Assessment / Activity**